

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

November 6, 2015

Chris Mason, Ph.D. Manager of Registrations Loveland Products, Inc. P.O. Box 1286 Greeley, CO 80632-1286

Subject: Notification per PRN 98-10 – Minor Label Updates; Change of Primary Brand Name to

"Amine 4 2,4-D Weed Killer"

Product Name: Clean Crop Amine 4 2,4-D Weed Killer

EPA Registration Number: 34704-120 Application Date: September 10, 2015

Decision Number: 509694

## Dear Dr. Mason:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10. The primary brand name "Amine 4 2,4-D Weed Killer" has been added to the product record. The label submitted with the application has been stamped "Notification" and will be placed in our records.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance. If you have any questions regarding this letter, please feel free to contact Terri Stowe at (703) 305-6117 or via e-mail at stowe.terri@epa.gov.

Sincerely,

Kathryn V. Montague Product Manager 23

Herbicide Branch

Registration Division (7505P) Office of Pesticide Programs

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# AMINE 4 2,4-D WEED KILLER

For Selective Broadleaf Weed Control in Certain Crops, Turf and Non-Crop Areas.

**ACTIVE INGREDIENT:** 

NOTIFICATION

34704-120

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

11/06/2015

\*Equivalent to 38.6% 2,4-D acid or 3.74 pounds per gallon.

\*Isomer specific by AOAC Method No. 6.275-6.279 (13th Ed.)

# KEEP OUT OF REACH OF CHILDREN DANGER — PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

For Additional Precautionary Statements, Complete First Aid, Directions for Use, Storage and Disposal and Other Use Information, See Inside This Label Booklet.

# **FIRST AID**

If in eyes:	Hold eye open and rinse slowly and gently with water for 5-20 minutes.
	<ul> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> </ul>
	Call a poison control center or doctor for treatment advice.
If swallowed:	Call a poison control center or doctor immediately for treatment advice.
	<ul> <li>Have a person sip a glass of water if able to swallow.</li> </ul>
	<ul> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> </ul>
	<ul> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
If on skin	Take off contaminated clothing.
or clothing:	• Rinse skin immediately with plenty of water for 15-20 minutes.
	Call a poison control center or doctor for treatment advice.
If inhaled:	Move person to fresh air.
	• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by
	mouth-to-mouth, if possible.
	Call a poison control center or doctor for further treatment advice.

# FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. **Note to Physician:** If in eyes, specialized ophthalmologic attention may be necessary. If swallowed, probable mucosal damage may contraindicate gastric lavage. There is no specific antidote; treat symptomatically.

EPA REG. NO. 34704-120

EPA EST. NO. 34704-MT-001

NET CONTENTS 2½ GAL. (9.46 L)

**HERBICIDE** 

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS DANGER — PELIGRO

Corrosive. Causes irreversible eye damage. Harmful if swallowed. Do not get in eyes or on clothing.

# **Personal Protective Equipment:**

Some materials that are chemical-resistant to this product are barrier laminate, nitrile rubber, neoprene rubber or viton. If you want more options, follow the instructions for category "A" on an EPA chemical-resistance category selection chart.

# All mixers, loaders, applicators, flaggers, and other handlers must wear:

- Long-sleeved shirt and long pants,
- Shoes and socks.
- Protective eyewear (goggles or face shield),
- Chemical resistant gloves, when applying, applying with any handheld nozzle or equipment, mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate,
- Chemical resistant apron when applying, mixing or loading, cleaning up spills or equipment, or otherwise exposed to the
  concentrate.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

See engineering controls for additional requirements.

# **Engineering controls statements:**

**Enclosed Cockpits:** Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240(d)(6)].

When handlers use enclosed cabs or aircraft in a manner that meets with requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(5-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

# **USER SAFETY RECOMMENDATIONS**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. If
  pesticide gets on skin, wash immediately with soap and water.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as
  possible, wash thoroughly and change into clean clothing.

# **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish and aquatic invertebrates. For terrestrial uses: Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Application around a cistern or well may result in contamination of drinking water or groundwater.

**Aquatic Weed Control:** Fish breathe dissolved oxygen in the water and decaying weeds also use oxygen. When treating continuous, dense weed masses, it may be appropriate to treat only part of the infestation at a time. For example, apply the product in lanes separated by untreated strips that can be treated after vegetation in treated lanes has disintegrated. During the growing season, weeds decompose in a 2 to 3 week period following treatment. Begin treatment along the shore and proceed outwards in bands to allow fish to move into untreated areas. Waters having limited and less dense weed infestations may not require partial treatments.

# **Groundwater Contamination:**

Most cases of groundwater contamination involving phenoxy herbicides such as 2,4-D have been associated with mixing/loading and disposal sites. Caution should be exercised when handling 2,4-D pesticides at such sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

Do not use the same spray equipment for other purposes unless thoroughly cleaned.

Do not use in or near a greenhouse.

Do not contaminate water used for irrigation or domestic purposes (except as specified on this label) especially in areas where susceptible plants are grown.

Do not treat irrigation ditches in areas where water will be used to overhead (sprinkler) irrigate susceptible crops.

Large amounts of 2,4-D in the soil may temporarily inhibit seed germination. Do not use in any manner other than specified on the label to avoid possible crop injury or residues at harvest.

## **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

# AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls.
- Chemical-resistant gloves made of any waterproof material,
- Shoes plus socks.
- Protective evewear.

# **NON-AGRICULTURAL USE REQUIREMENTS**

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides [(40 CFR Part 170)]. The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter or allow people (or pets) to enter the treated area until sprays have dried.

NOTE: For application to turf being grown for sale or other commercial use as sod, or for commercial seed production, or for research purposes, follow AGRICULTURAL USE REQUIREMENTS on this label.

# PRODUCT PRECAUTIONS AND RESTRICTIONS

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

# SPOT TREATMENTS FOR ALL USE SITES

Spot treatment restriction: Spot treatment is defined as a treatment area no greater than 1,000 sq. ft. per acre. Spot treatments are limited to 2 (two) applications per year. A maximum rate of 2.14 quarts AMINE 4 per acre (2.0 lbs ae/acre or 0.045 lb ae/1000 sq ft.) per application. Wait a minimum of 30 days between applications. Broadcast application is prohibited at this use rate. Aerial application is prohibited for spot treatments.

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# **SPRAY PREPARATIONS**

Mix AMINE 4 only with water to obtain adequate coverage, unless otherwise directed on this label. Add about half the water to the mixing tank, then add the AMINE 4 with agitation, and finally the rest of the water with continuing agitation. Note: Adding oil, wetting agent, or other surfactant to the spray may increase effectiveness on weeds, but also may reduce selectivity to crops, resulting in crop damage.

Crops contacted by AMINE 4 sprays or spray drift may be killed or suffer significant stand loss with extensive quality and yield reduction.

When an adjuvant is to be used with this product, Loveland Products, Inc. recommends using **LI 700**®. For drift control and defoaming, the use of **Compadre**® at .125% v/v is recommended.

# SPRAY DRIFT MANAGEMENT

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

# **Droplet Size**

When applying sprays that contain 2,4-D as the sole active ingredient, or when applying sprays that contain 2,4-D mixed with active ingredients that require a coarse or coarser spray, apply only as a coarse or coarser spray (ASAE standard 572) or a volume mean diameter of 385 microns or greater for spinning atomizer nozzles.

When applying sprays that contain 2,4-D mixed with other active ingredients that require a medium or more fine spray, apply only as a medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

# Wind Speed

Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition and there are not sensitive areas (including, but not limited to, residential areas, bodies of water, known habitat for nontarget species, nontarget crops) within 250 feet downwind. If applying a medium spray, leave one swath unsprayed at the downwind edge of the treated field.

# **Temperature Inversions**

If applying at wind speeds less than 3 mph, the applicator must determine if: a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

# Susceptible Plants

Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption. Susceptible crops include, but are not limited to, cotton, okra, flowers, grapes (in growing stage), fruit trees (foliage), soybeans (vegetative stage), ornamentals, sunflowers, tomatoes, beans, and other vegetables, or tobacco. Small amounts of spray drift that might not be visible may injure susceptible broadleaf plants.

# Other State and Local Requirements

Applicators must follow all state and local pesticide drift requirements regarding application of 2.4-D herbicides. Where states have more stringent regulations, they must be observed.

#### Equipment

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates. The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.

Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety. This requirement does not apply to forestry or rights-of-way applications.

When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this by adjusting the path of the aircraft upwind. For ground boom application: Do not apply with a nozzle height greater than 4 feet above the crop canopy.

# **ENDANGERED SPECIES**

Use of this product in certain portions of California, Oregon, and Washington is subject to the January 22, 2004 Order for injunctive relief in Washington Toxics Coalition, et al. v. EPA, CO132C, (W.D. WA). For further information, please refer to EPA Web Site: http://www.epa.gov/espp.

## APPLICATION PROCEDURES

Generally, the lower dosages given will be satisfactory for young, succulent growth of sensitive weed species. For less sensitive species and under conditions where control is more difficult, the higher dosages will be needed. Apply AMINE 4 during warm weather when weeds are young and growing actively. Apply a minimum of 2 gals of spray solution per acre by air or a minimum of 5 gals of spray solution per acre by ground unless directed otherwise.

Do not apply this product through any type of irrigation system.

# PLANTING IN TREATED AREAS

**Labeled Crops:** Crops listed as use sites on this or other registered 2,4-D labels may be planted within 29 days of AMINE 4 application. Follow more specific limitations (if listed) provided in the directions for individual crops. Labeled crops may be at risk for crop injury or loss when planted soon after application, especially in the first 14 days.

Degradation factors described below should be considered in weighing this risk.

**Other Crops:** All other crops may be planted 30 or more days following an application without concern for illegal residues in the planted crop. However, under certain conditions, there may be a risk of injury to susceptible crops. Degradation factors described below should be considered in weighing this risk. Under normal conditions, any crop may be planted without risk of injury if at least 90 days of soil temperatures above freezing have elapsed since application.

**Degradation factors:** When planting into treated areas, the risk of crop injury is less if lower rates of product were applied and conditions following application have included warm, moist soil conditions that favor rapid degradation of 2,4-D. Risk is greater if higher rates of product were applied and soil temperatures have been cold and/or soils have been excessively wet or dry in the days following application.

Consult your local Agricultural Extension Service for information about susceptible crops and typical soil conditions in your area.

### WEED LIST

The degree of control is dependent upon the species, stage of growth and overall growing conditions. Best results are obtained when weeds are young and actively growing. AMINE 4 may be applied to control the following listed weeds.

Artichoke Dogbane\* Marsh Elder Fleabane, Daisy Morningglory Aster Flixweed Musk Thistle Austrian Fieldcress Beggarticks\* Frenchweed Mustard\* Bindweed\* Galinsoga Nettles\*\*

Orange Hawkweed

Goatsbeard Bittersweet Goldenrod\* Bitterweed Parsnip Ground Ivv\* Pennywort Blue Lettuce Broomweed Hairy Galinsoga Peppergrass Pigweed\*\* Bull Thistle Heal-all **Plantains** Burdock Hoary Cress\* Canada Thistle\* Horsetail Povertyweed Catnip Ironweed\* Prickly Lettuce Chicory Jerusalem Artichoke Primrose

Puncturevine Cockle Jimsonweed Cocklebur Knotweed\* Radish Coffeeweed Lambsquarters Ragweed Ragweed, Common Common Evening Primrose Lettuce (wild) Croton Locoweed Rough Fleabane

Dandelion Mallow\* Russian Thistle\* Docks\* Manyflowered Aster Salsify

Sicklepod Toadflax Wild Onion\*
Smartweed\* Tumbleweed Wild Parsnips
Sowthistle Velvetleaf Wild Radish
Spanish Needles Venice Mallow Wild Rape

Stinging Nettles Vervains\* Wild Sweet Potato Strawberry, Wild Vetch Wormwood

Sunflower Wild Carrot
Tansymustard Wild Garlic\*
Tanweed Wild Lettuce

**APPLE AND PEAR ORCHARDS—Non-Bearing trees (well established, one year or older) and Bearing trees before and after bloom:** Use 3 pts product (1.4 lb ae) in 20 to 50 gals of water per acre of ground sprayed. For band or spot treatment calculate rates according to the actual portion of an acre treated. Apply as a directed spray onto the weeds to point of runoff when weeds are young and actively growing (pre-bud to early stage). The preharvest interval (PHI) is 14 days. Do not cut orchard floor forage for hay within 7 days of application. Use a maximum of 2.14 qts AMINE 4 per acre (2.0 lbs ae/acre) per application. Limited to 2 applications per crop cycle. Observe a minimum of 75 days between applications.

**STONE FRUIT AND NUT ORCHARDS (including pistachios)**—For control of annual broadleaf weeds in the orchard floor, apply 3 pts product per acre. Apply using coarse sprays and low pressure in sufficient volume of water to obtain thorough wetting of weeds.

**Stone Fruits:** The preharvest interval (PHI) is 40 days. Do not cut orchard floor forage or hay within 7 days of application. Postemergence: Limited to 2 applications per crop cycle. Maximum of 2.14 qts AMINE 4 per acre (2.0 lb ae/acre) per application. Observe a minimum of 75 days between applications.

**Filberts:** The preharvest interval (PHI) is 45 days. Wait a minimum of 30 days between applications. Make a maximum of 4 applications per year. Use a maximum of 1.07 qts AMINE 4 (1.0 lb ae) per 100 gals of spray solution per application.

**Pistachios and other Tree Nuts:** Do not cut orchard floor forage or hay within 7 days of application. The preharvest interval (PHI) is 60 days. Postemergence: Limited to 2 applications per year. Use a maximum of 2.14 qts AMINE 4 per acre (2.0 lbs ae/acre) per application. Observe a minimum of 30 days between applications.

# Precautions in applying AMINE 4 in Orchards

When applying AMINE 4 in orchards, apply only after irrigation and allow maximum time before the next irrigation. Do not apply around fruit trees with handgun. Use only flat, fan-typed nozzles and low pressure (20 to 30 psi). Use a fixed-boom application which can be calibrated and will deposit the spray uniformly. Apply precisely and uniformly to prevent damage to the trees and to obtain satisfactory weed control. Do not apply during windy periods or extremely high temperatures. Do not use on light, sandy soil. Application to bare ground may result in injury. Do not allow spray to drift or contact foliage, fruit, stems, trunk of trees, or exposed roots, as injury may result. Trees must be at least 1 year old and in vigorous condition before application is made. Do not apply during bloom.

# **ASPARAGUS**

Apply 3 to 4 pts AMINE 4 (1.4 to 1.87 lbs ae) in about 60 gals of water per acre for ground application and 12 gals per acre for air application. Apply on actively growing weeds, usually in April or May. If spears are present, treat immediately after cutting. Make no more than 2 applications during the harvest season and these should be spaced at least one month apart. Spears contacted by the spray may be malformed and off-flavored. If malformed, spears should be cut immediately and discarded. Post-harvest spraying should be only by ground rig using drop nozzles to avoid spraying the fern. Applications should be spaced a minimum of 30 days between applications. Make no more than a maximum of 2.14 qts/acre product (2.0 lb ae/acre) per application. The preharvest interval (PHI) is 3 days.

<sup>\*</sup>These species may require repeated applications or use the higher rate recommended on this label.

<sup>\*\*</sup>Control of these species in areas which are locally resistant, may not be satisfactory with this product.

WEED CONTROL IN SMALL GRAINS NOT UNDERSEEDED WITH A LEGUME (Barley, Oats, Rye, Wheat) See Table for specified use rates. Spray after grain begins tillering and before the boot stage (usually 4 to 8 inches tall) and weeds are small. Do not apply before the tiller stage nor from early boot through the milk stage. To control large weeds that will interfere with harvest or to suppress perennial weeds, preharvest treatment can be applied when the grain is in the dough stage. Best results will be obtained when soil moisture is adequate for plant growth and weeds are growing well. The preharvest interval (PHI) is 14 days.

**Postemergence:** Limit applications to one postemergence application per crop cycle. Use a maximum of 2.67 pts AMINE 4 per acre per application (1.24 lb ae/A).

**Preharvest:** Limited to one preharvest application per crop cycle. Maximum of 1.07 pts AMINE 4 per acre (0.5 lbs ae/acre) per application. Limit applications of AMINE 4 to 3.7 pts/acre (1.72 lbs ae/acre) per crop cycle.

**Note:** Do not permit dairy animals or meat animals being finished for slaughter to forage or graze treated grain fields within 2 weeks after treatment. Do not feed treated straw to livestock.

**WEED CONTROL IN CORN:** (field, pop and sweet) See Table for specified use rates.

**Product Restrictions:** Limited to one preplant or preemergence application per crop cycle. Apply a maximum of 1.07 qts AMINE 4 per acre (1.0 lb ae/acre) per preemergence application. Limited to one postemergence application per crop cycle. Apply a maximum of 1.07 pt AMINE 4 per acre (0.5 lb ae/acre) per application.

**Preemergence** - Apply to soil any time after planting but before corn emerges. Do not use on very light, sandy soil. **Emergence** - Apply just as corn plants are breaking ground. **Postemergence** - Apply to emerged corn. When corn is over 8 inches tall or the fifth leaf collar is visible, whichever occurs first, use drop nozzles to keep spray off corn foliage. Do not apply from 7 to 10 days before tasseling to dough stage. Injury to corn is most likely to occur if AMINE 4 is applied when corn is growing rapidly under high temperature and high soil moisture conditions. In such situations, use the low rate of 0.5 pt per acre. After application, delay cultivation for 8 to 10 days to allow the corn to overcome any temporary brittleness.

**Preharvest (field and pop only):** Limited to one preharvest application per crop cycle. Apply 1 to 2 pts AMINE 4 per acre (0.46 to 0.93 lb ae/acre) after the hard dough or denting stage. Apply by air or ground equipment to suppress perennial weeds, decrease weed seed production, and control tall weeds such as bindweed, cocklebur, dogbane, jimsonweed, ragweed, sunflower, velvetleaf, and vines that interfere with harvesting. Do not forage or feed corn fodder for 7 days following application. Do not exceed a maximum of 3.2 pts AMINE 4 per acre (1.5 lbs ae/acre) per application. Do not exceed a maximum of 3.2 qts/acre (3.0 lbs ae/acre) per crop cycle.

**Sweet Corn Restrictions:** Do not use treated crop as fodder for 7 days following application. The preharvest interval (PHI) is 45 days. Observe a minimum of 21 days between applications. Use a maximum of 3.2 pts/acre (1.5 lbs ae/acre) per crop cycle.

**NOTE:** Hybrids vary in tolerance to 2,4-D. Some are easily injured. Spray only varieties known to be tolerant to 2,4-D. Consult the seed company or your Agricultural Experiment Station or Extension Service Weed Specialist for this information.

With Liquid Nitrogen Solutions: For late season control of young smartweeds, cocklebur, annual morningglory and other annual broadleaf weeds less than 1 inch high. Field should be as clean as possible and corn 20 to 30 inches tall. Apply 1 pt with 80 to 120 lbs nitrogen per acre. The spray MUST be prepared by first adding required amount of liquid nitrogen solution to spray tank. Next dilute 1 pt of AMINE 4 with 2 qts of clean water for each acre to be treated with one tankful. Start the tank agitator and SLOWLY add the diluted 2,4-D solution. Spray immediately, maintaining continuous agitation until spray tank is empty. Direct the spray to lower 3" to 4" of corn stalk. Use spray equipment designated to handle corrosive liquid nitrogen solutions. After spraying, remove any remaining solution and rinse spray rig thoroughly with water. Mix only one tank at a time. Do not spray during or immediately following cold weather.

# **HOPS**

Weeds	Amount Per Acre	Directions	
Annual broadleaf weeds	1 pint (0.46 lbs ae)	Make directed applications to the row	
		middles. Make up to 3 applications at	
		30-day intervals with the last	
		application before harvest.	

**RESTRICTIONS AND LIMITATIONS FOR HOPS:** Limited to 3 applications per crop cycle. Maximum of 1 pint product/acre (0.46 lbs ae/A) per application. Maximum of 3 pints product/acre (1.4 lbs ae/A) per crop cycle. Minimum of 30 days between applications. Observe the preharvest interval (PHI) of 28 days.

**PRECAUTIONS:** Hop foliage, especially new growth, is susceptible to this product. Take care to avoid spray or drift outside target area. The use of shielded or hooded sprayers, coarse sprays and low pressure (30 psi or less) will minimize contact with foliage and plant injury.

**WEED CONTROL IN SORGHUM (MILO):** See Table for specified use rates. Treat only after the sorghum is 6 inches high and preferably before it is 15 inches high. Do not treat during the boot, tasseling, or early dough stages. Reduce spray drift by keeping the boom and spray nozzles as low as possible. If crop is taller than 8 inches, use drop nozzles to keep the spray off the leaves. Temporary crop injury can be expected under conditions of high soil moisture and high air temperatures.

If it is necessary to apply AMINE 4 under these conditions, use no more than 2/3 pt per acre. The preharvest interval (PHI) is 30 days. Do not permit meat or dairy animals to consume treated crop as fodder or forage for 30 days following application. Limited to 1 application per crop cycle. Maximum of 2 pts AMINE 4 per acre (0.93 lb ae/acre) per application.

**Note:** Hybrids vary in tolerance to 2,4-D. Some are easily injured. Spray only varieties known to be tolerant to 2,4-D. Consult the seed company or your Agricultural Experiment Station or Extension Service Weed Specialist for this information.

**WEED CONTROL IN RICE\*:** See Table for specified use rates. Do not exceed the maximum of 3.2 pts AMINE 4 per acre (1.5 lbs ae/acre) per crop cycle.

**Postemergence:** Limited to one postemergence application per crop cycle. Apply a maximum of 3.2 pts AMINE 4 per acre (1.5 lbs ae/acre) per postemergence application.

Apply in the late tillering stage of rice development, at the time of first joint development (first to second green ring), usually 6 to 9 weeks after emergence. Do not apply after panicle initiation, after rice internodes exceed ½ inch, at early seedling, early panicle, boot, flowering, or early heading growth stages. **NOTE:** Some rice varieties under certain conditions can be injured by 2,4-D. Therefore, before spraying, consult local Extension Service or university specialists for appropriate rates and timing of 2,4-D sprays.

Wild Rice (Minnesota only): The preharvest interval (PHI) is 60 days.

**Postemergence:** Limited to 1 application per crop cycle. Apply a maximum of 0.5 pt product (0.23 lb ae) /acre per application.

# \*Not for use in California.

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Amount of AMINE 4 to use in crops:		
	DOSAGE PER ACRE	
	Normal rates (usually	Higher rate for special situations <sup>2</sup>
CROP	safe to crops)	(more likely to injure crop)
SMALL GRAINS		
Spring postemergence		
wheat, barley, rye	2/3 to 1 1/3 pts	2 to 2.7 pts
oats	1/2 to 1 pt	1 1/2 to 2 pts
Preharvest (dough stage)		
wheat, barley, oats	1 to 1.1 pts	1 to 1.1 pts
CORN <sup>1</sup>		
Preemergence	2.14 pts	
Emergence <sup>1</sup>	1 pt	1.1 pts
Postemergence <sup>1</sup>		
up to 8 inches tall	1/2 to 1 pt	
8 inches to tasseling (use only		
directed spray)	1 pt	1 1/2 to 2 1/2 pts
SORGHUM (Milo) <sup>1</sup>		
Postemergence		
6 to 8 inches tall	2/3 to 1 pt	
8 to 15 inches tall	1 pt	1 1/2 to 2 pts
(use only directed spray)		
RICE	1 1/2 to 2 pts	2 to 3 pts

1 Corn and sorghum varieties vary in tolerance to 2,4-D; some are easily injured. Before spraying, get information on 2,4-D tolerance of specific varieties and spray only those known to be resistant to 2,4-D injury. If plants are more than 8 inches tall, use directed spray and keep spray off corn and sorghum foliage.

<sup>2</sup> These higher rates may be needed to handle difficult weed problems in certain areas such as under dry conditions especially in western areas. However, do not use unless possible crop injury will be acceptable. Consult State Agricultural Experiment Station or Extension Service Weed Specialists for recommendations or suggestions to fit local conditions.

**WEED CONTROL IN SUGARCANE:** Use 1 to 2 qts of product (0.93 to 1.87 lbs ae) in 5 to 25 gals of water per acre as a preor postemergence spray in the spring after cane emerges and through lay-by. Consult local Agricultural Experiment Station or Extension Service Weed Specialist on specific use of this product. Do not harvest cane prior to crop maturity. Do not apply more than 4.28 qts AMINE 4 per acre (4 lbs ae/acre) per crop cycle. **Preemergence:** Limited to one application per crop cycle. Do not exceed a maximum of 2.14 qts AMINE 4 per acre (2.0 lbs ae/acre) per application. **Postemergence:** Limited to one application per crop cycle. Do not exceed a maximum of 2.14 qts AMINE 4 per acre (2.0 lbs ae/acre) per application.

# SUGARCANE - HAWAII ONLY Crop-Specific Use Restrictions

Apply 1 to 3 pts AMINE 4 per acre per application as required. Do not harvest cane prior to crop maturity. Do not apply more than 4.28 qts AMINE 4 per acre (4 lbs ae/acre) per year.

**Preemergence:** Limited to one application per crop cycle. Do not exceed a maximum of 2.14 qts AMINE 4 per acre (2.0 lbs ae/acre) per application.

**Post emergence:** Do not exceed a maximum of 2.14 qts AMINE 4 per acre (2.0 lbs ae/acre) per application. Layby applications may be made, but crop damage may occur in some sugarcane cultivars.

# Do not apply this product in a manner that allows spray to drift from the application target site and/or harm to humans, animals or other non-target sites.

For the islands of Maui and Kauai, the general wind restriction is raised to 20 MPH. When applying in winds in excess of 15 MPH, the following requirements are in effect:

# **Aerial Applications:** Aerial applicators must:

- No application shall be made within a distance of 1000 feet of sensitive areas such as Nature Preserves, Wildlife Refuges, Parks, Lakes, Reservoirs, Rivers, Streams, Non-irrigation Canals, Natural Ponds, Estuaries, Wetlands, Intertidal Areas, Ecologically Significant Grasslands, homes, public or private buildings, or fields with crops other than sugarcane whenever these sensitive areas are downwind from the spray areas and subject to possible spray drift. In instances where these sensitive areas are upwind from the spray area, the minimum restricted distance shall be
- Apply only as a coarse or coarser spray (ASAE standard 572 or a volume mean diameter of 385 microns).
- Use a spray drift retardant and/or other measures known to control drift.

# **Ground Broadcast Applications:** For ground applications, applicators must:

- Apply by ground boom with nozzle height no more than 2 feet above ground (pre-emergence) or crop canopy (post
  emergent broadcast) applications or, for directed sprays, no more than 1 foot above the ground, or 1.25 ft (15 inches) for
  better spray patterns without boom levelers on uneven terrain.
- Apply only as a coarse or coarser spray (ASAE standard 572) or a volume mean diameter of 385 microns.
- Use spray drift retardants and/or other measures known to control drift.

**Recommended applications techniques to reduce off-site drift include,** but are not limited to, the use of hooded or shielded sprayers or other means to reduce drift.

# FOR USE IN CROP RESIDUE MANAGEMENT SYSTEMS IN SOYBEANS (Preplant only): Product Information

AMINE 4 is a phenoxy-type herbicide that provides postemergence control of many susceptible annual and perennial broadleaf weeds. AMINE 4 may be applied prior to planting soybeans to provide foliar burndown control of susceptible annual and perennial broadleaf weeds and certain broadleaf cover crops such as those listed on this label. AMINE 4 should only be applied preplant to soybeans in situations such as reduced tillage production systems, where emerged weeds are present. Apply only according to the application instructions given below. Do not use any tillage operations between application of AMINE 4 and planting of soybeans. **Restrictions:** The maximum rate per crop cycle is 2.14 pts (1.0 lb ae)/acre. Limit of 1 application per crop cycle. Use a maximum of 2.14 pts AMINE 4 per acre (1.0 lb ae/acre) per preplant application. Apply not less than 30 days prior to planting soybeans.

# **Mixing Instructions**

Compatible crop oil concentrates, agricultural surfactants and fluid fertilizers approved for use on growing crops may increase the herbicidal effectiveness of AMINE 4 on certain weeds and may be added to the spray tank. Read and follow all directions and precautions on this label and on the label of each product added to the spray mixture.

# **Application Procedures**

Apply using air or ground equipment in sufficient gallonage to obtain adequate coverage of weeds. Use 2 or more gals of water per acre in aerial equipment and 10 or more gals of spray mixture per acre for ground equipment.

**Application Timing and Use Rates** 

	When to apply	
Maximum Rate Per Acre	(Days prior to planting soybeans)	
2 pints	NOT LESS THAN 30 DAYS	

## WEEDS CONTROLLED

Alfalfa*	Garlic, Wild*	Purslane, Common
Bindweed*	Horseweed or Marestail	Ragweed, Common
Bullnettle	Ironweed	Ragweed, Giant
Bittercress, Smallflowered	Lambsquarters, Common	Shepherdspurse
Buttercup, Smallflowered	Lettuce, Prickly	Smartweed, Pennsylvania*
Carolina Geranium	Morningglory, Annual	Sowthistle, Annual
Cinquefoil, Common and Rough	Mousetail	Speedwell
Clover, Red*	Mustard, Wild	Thistle, Canada*
Cocklebur, Common	Onion, Wild*	Thistle, Bull
Dandelion*	Pennycress, Field	Velvetleaf
Dock, Curly*	Peppergrass*	Vetch, Hairy*
Eveningprimrose, Cutleaf	Plantains	Virginia Copperleaf

<sup>\*</sup>These species are only partially controlled.

In general, weeds should be small, actively growing and free of stress caused by extremes in climatic conditions, diseases, or insect damage at the time of treatment. The response of individual weeds species to AMINE 4 is variable. Consult your local county or state Agricultural Extension Service or crop consultant for advice.

# **Application Restrictions and Precautions**

Important Notice: Unacceptable injury to soybeans planted in fields previously treated with AMINE 4 may occur. Whether or not soybean injury occurs and the extent of the injury will depend on weather (temperature and rainfall) from herbicide application until soybean emergence and agronomic factors such as the amount of weed vegetation and previous crop residue present. Injury is more likely under cool rainy conditions and where there is less weed vegetation and crop residue present at the time of application. Do not apply AMINE 4 as described on this label unless you are prepared to accept soybean injury, including loss of stand and yield.

Apply a maximum of one application per growing season regardless of the treatment rate.

Do not use on sandy soils with less than 1% organic matter.

Do not replant fields treated with AMINE 4 in the same growing season with crops other than those labeled for use with AMINE 4.

Do not apply AMINE 4 when weather conditions such as temperature air inversions or wind favor drift from treated areas to susceptible plants. Livestock Grazing Restriction: Do not feed hay, forage or fodder. Restrict livestock from grazing treated fields. Livestock should be restricted from feeding/grazing of treated cover crops.

In fields previously treated with AMINE 4, plant soybean seed as deep as practical or at least 1 inch deep. Adjust the planter, if necessary, to ensure that planted seed is completely covered.

# **STRAWBERRIES**

**Product Restrictions:** Do not apply in California or Florida.

<u>Dormant or after last picking</u>: <u>Limited to 1 application per crop cycle. Maximum of 1.6 qts (1.5 lbs ae) /acre per application</u>. To control broadleaf weeds in established strawberry plantings, apply 2 to 3 pts AMINE 4 in 25 to 50 gals of water per acre. Apply in early spring when strawberries are dormant or immediately after the last picking. Do not apply unless possible injury to the crop is acceptable. Follow recommendations of State Extension Weed or Horticultural Specialist in your area.

AQUATIC WEED CONTROL (ponds, lakes, reservoirs, marshes, bayous, drainage ditches, canals, rivers, and streams that are quiescent or slow moving) (NOT REGISTERED FOR AQUATIC USE IN NEW YORK STATE) Ditchbank application:

Postemergence:

Limited to 2 applications per season. Maximum of 2.0 lbs ae (2.14 qts AMINE 4)/A per application. Minimum of 30 days between applications. Spot treatment permitted.

Do not use on small canals with a flow rate less than 10 cubic feet per second (CFS) where water will be used for drinking purposes. CFS may be estimated by using the formula below. The approximate velocity needed for the calculation can be determined by observing the length of time that it takes a floating object to travel a defined distance. Divide the distance (ft.) by the time (sec.) to estimate velocity (ft. per sec.). Repeat 3 times and use the average to calculate CFS.

Average Width (ft.) x Average Depth (ft.) x Average Velocity (ft. per sec.) = CFS

For ditchbank weeds: Do not allow boom spray to be directed onto water surface. Do not spray across stream to opposite bank. **For shoreline weeds:** Allow no more than 2 foot overspray onto water.

**Floating and Emergent Weeds:** Maximum of 4.0 lbs ae (4.28 qts AMINE 4)/surface acre per application. Limited to 2 applications per season. Minimum of 21 days between applications. Spot treatments are permitted. Apply to emergent aquatic weeds in ponds, lakes, reservoirs, marshes, bayous, drainage ditches, non-irrigation canals, rivers, and streams that are quiescent or slow moving. Coordination and approval of local and state authorities may be required, either by letter of agreement or issuance of special permits for aquatic applications.

## Water Use

# 1. Water for irrigation or sprays:

A. If treated water is intended to be used only for crops or non-crop areas that are labled for direct treatment with 2,4-D such as pastures, turf, or cereal grains, the treated water may be used to irrigate and/or mix sprays for these sites at anytime after the 2,4-D aquatic application.

B. Due to potential phytotoxicity considerations, the following restrictions are applicable: If treated water is intended to be used to irrigate or mix sprays for plants grown in commercial nurseries and greenhouses; and other plants or crops that are not labeled for direct treatment with 2,4-D, the water must not be used unless one of the following restrictions has been observed:

- i. A setback distance from functional water intake(s) of greater than or equal to 600 ft was used for the application, or,
- ii. A waiting period of 7 days from the time of application has elapsed, or,
- iii. An approved assay indicates that the 2,4-D concentration is 100 ppb (0.1 ppm) or less at the water intake. Wait at least 3 days after application before initial sampling at water intake.

# 2. Drinking water (potable water):

- A. Consult with appropriate state or local water authorities before applying this product to public waters. State or local agencies may require permits. The potable water use restrictions on this label are to ensure that consumption of water by the public is allowed only when the concentration of 2,4-D in the water is less than the MCL (Maximum Contaminant Level) of 70 ppb. Applicators should consider the unique characteristics of the treated waters to assure that 2,4-D concentrations in potable water do not exceed 70 ppb at the time of consumption.
- B. For floating and emergent weed applications, the drinking water setback distance from functioning potable water intakes is greater than or equal to 600 ft.
- C. If no setback distance of greater than or equal to 600 ft is used for application, applicators or the authorizing organization must provide a drinking water notification prior to a 2,4-D application to the party responsible for public water supply or to individual private water users. Notification to the party responsible for a public water supply or to individual private water users must be done in a manner to assure that the party is aware of the water use restrictions when this product is applied to potable water. The following is an example of a notification via posting, but other methods of notification which convey the above restrictions may be used and may be required in some cases under state or local law or as a condition of a permit.

# **Example:**

Posting notification should be located every 250 ft including the shoreline of the treated area and up to 250 feet of shoreline past the application site to include immediate public access points. Posting must include the day and time of application. Posting may be removed if analysis of a sample collected at the intake 3 or more days following application shows that the concentration in the water is less than 70 ppb (100 ppb for irrigation or sprays), or after 7 days following application, whichever occurs first.

**Text of notification:** Wait 7 days before diverting functioning surface water intakes from the treated aquatic site to use as drinking water, irrigation, or sprays, unless water at functioning drinking water intakes is tested at least 3 days after application and is demonstrated by assay to contain not more than 70 ppb 2,4-D (100 ppb for irrigation or sprays).

Application Date:	_	Time:_	
_ ' '	 	_	_

- D. Following each application of this product, treated water must not be used for drinking water unless one of the following restrictions has been observed:
  - i. A setback distance from functional water intake(s) of greater than or equal to 600 ft was used for the application, or,
  - ii. A waiting period of at least 7 days from the time of application has elapsed, or,
- iii. An approved assay indicates that the 2,4-D concentration is 70 ppb (0.07 ppm) or less at the water intake. Sampling for drinking water analysis should occur no sooner than 3 days after 2,4-D application. Analysis of samples must be completed by a laboratory that is certified under the Safe Drinking Water Act to perform drinking water analysis using a currently approved version of analytical Method Number 515, 555, other methods for 2,4-D as may be listed in Title 40 CFR, Part 141.24, or Method Number 4015 (immunoassay of 2,4-D) from U.S. EPA Test Methods for Evaluating Solid Waste SW-846.
- E. **Note:** Existing potable water intakes that are no longer in use, such as those replaced by a connection to a municipal water system or a potable water well, are not considered to be functioning potable water intakes.
- F. Drinking water setback distances do not apply to terrestrial applications of 2,4-D adjacent to water bodies with potable water intakes.
- 3. Except as stated above, there are no restrictions on using water from treated areas for swimming, fishing, watering livestock or domestic purposes.

**Submersed Weeds:** Maximum of 11.55 qts (10.8 lbs ae) per acre-foot per application. Limited to 2 applications per season. Apply to aquatic weeds in ponds, lakes, reservoirs, marshes, bayous, drainage ditches, nonirrigation canals, rivers, and streams that are quiescent or slow moving. Do not apply within 21 days of previous application. When treating moving bodies of water, applications must be made while traveling upstream to prevent concentration of 2,4-D downstream from the application. Coordination and approval of local and state authorities may be required, either by letter of agreement or issuance of special permits for such use.

Table 1. Amount of 2,4-D to Apply for a Target Subsurface Concentration

Average	For Typical Conditions		For Difficult Conditions*	
Depth ft	qts AMINE 4 per acre	lbs ae/acre	qts AMINE 4 per acre	lbs ae/acre
1	5.77	5.4	11.55	10.8
2	11.55	10.8	23.10	21.6
3	17.30	16.2	34.62	32.4
4	23.10	21.6	46.20	43.2

<sup>\*</sup> Examples include spot treatment of pioneer colonies of Eurasian Water Milfoil and certain difficult to control aquatic species.

## Water Use:

# 1. Water for irrigation or sprays:

- A. If treated water is intended to be used only for crops or noncrop areas that are labeled for direct treatment with 2,4-D such as pastures, turf, or cereal grains, the treated water may be used to irrigate and/or mix sprays for these sites at anytime after the 2,4-D aquatic application.
- B. Due to potential phytotoxicity and/or residue considerations, the following restrictions are applicable: If treated water is intended to be used to irrigate or mix sprays for unlabeled crops, noncrop areas or other plants not labeled for direct treatment with 2,4-D, the water must not be used unless one of the following restrictions has been observed:
  - i. A setback distance described in the Drinking Water Setback Table was used for the application, or.
  - ii. A waiting period of 21 days from the time of application has elapsed, or,
  - iii. An approved assay indicates that the 2,4-D concentration is 100 ppb (0.1 ppm) or less at the water intake. See Table 3 for the waiting period after application but before taking the initial sampling at water intake.

# 2. Drinking water (potable water):

- A. Consult with appropriate state or local water authorities before applying this product to public waters. State or local agencies may require permits. The potable water use restrictions on this label are to ensure that consumption of water by the public is allowed only when the concentration of 2,4-D in the water is less than the MCL (Maximum Contaminant Level) of 70 ppb. Applicators should consider the unique characteristics of the treated waters to assure that 2,4-D concentrations in potable water do not exceed 70 ppb at the time of consumption.
- B. For submersed weed applications, the drinking water setback distances from functioning potable water intakes are provided in Table 2. Drinking Water Set back Distance (below).
- C. If no setback distance from the Drinking Water Setback Table (Table 2) is to be used for the application, applicators or the authorizing organization must provide a drinking water notification and an advisory to shut off all potable water intakes prior to a 2,4-D application. Notification to the party responsible for a public water supply or to individual private water users must be done in a manner to assure that the party is aware of the water use restrictions when this product is applied to potable water. The following is an example of a notification via posting, but other methods of notification which convey the above restrictions may be used and may be required in some cases under state or local law or as a condition of a permit.

# **Example:**

Posting notification should be located every 250 feet including the shoreline of the treated area and up to 250 feet of shoreline past the application site to include immediate public access points. Posting should include the day and time of application. Posting may be removed if analysis of a sample collected at the intake no sooner than stated in Table 3 (below) shows that the concentration in the water is less than 70 ppb (100 ppb for irrigation or sprays), or after 21 days following application, whichever occurs first. Text of notification: Wait 21 days before diverting functioning surface water intakes from the treated aquatic site to use as drinking water, irrigation, or sprays, unless water at functioning drinking water intakes is tested no sooner than (insert days from Table 3) and is demonstrated by assay to contain not more than 70 ppb 2,4-D (100 ppb for irrigation or sprays).

Application Date:

Time:

- D. Following each application of this product, treated water must not be used for drinking water unless one of the following restrictions has been observed:
  - i. A setback distance described in the Drinking Water Setback Distance Table was used for the application, or,

- ii. A waiting period of at least 21 days from the time of application has elapsed, or.
- iii. An approved assay indicates that the 2,4-D concentration is 70 ppb (0.07 ppm) or less at the water intake. Sampling for drinking water analysis should occur no sooner than stated in Table 3. Analysis of samples must be completed by a laboratory that is certified under the Safe Drinking Water Act to perform drinking water analysis using a currently approved version of analytical Method Number 515, 555, other methods for 2,4-D as may be listed in Title 40 CFR, Part 141.24, or Method Number 4015 (immunoassay of 2,4-D) from U.S. EPA Test Methods for Evaluating Solid Waste SW-846.
- E. Note: Existing potable water intakes that are no longer in use, such as those replaced by a connection to a municipal water system or a potable water well, are not considered to be functioning potable water intakes.
- F. Drinking water setback distances do not apply to terrestrial applications of 2,4-D adjacent to water bodies with potable water intakes.

Table 2. Drinking Water Setback Distance for Submersed Weed Applications

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	Application Rate	and Minimum	Setback Distance	(feet) From Fund	ctioning Potable Water Intake	
	1 ppm*	2 ppm*	3 ppm*	4 ppm*		
	600	1200	1800	2400		

<sup>\*</sup> ppm acid equivalent target water concentration

Table 3. Sampling for Drinking Water Analysis After 2,4-D Application for Submersed Weed Applications

Mir	nimum Days After	Application Before	: Initial Water Sam	pling at the Functioning Potable Water Intake
	1 ppm*	2 ppm*	3 ppm*	4 ppm*
	5	10	10	14

<sup>\*</sup> ppm acid equivalent target water concentration

**Surface Application:** Use power sprayers operated with a boom or spray gun mounted on a boat, tractor, or truck. Thorough wetting of foliage is essential for maximum control. Use 100 to 400 gals per acre of spray mixture. Special precautions, such as the use of lower pressure, large nozzles, and thickening agents should be taken to avoid spray drift in areas of sensitive crops.

**Air Application:** Use drift control spray equipment or thickening agents mixed into the spray solution. Apply 8 pts AMINE 4 per acre through standard boom systems with a minimum of 5 gals of spray mixture per acre.

# **NOTICE TO APPLICATORS**

State and Local coordination: Before application, coordination and approval of local and state authorities may be required, either by letter of agreement or issuance of special permits for such use.

**Fish Toxicity:** To avoid fish kill from decaying plant material, do not treat more than one half the lake or pond at one time. For large bodies of weed infested waters leave buffer strips of at least 100 feet wide and delay treatment of these strips for 4 to 5 weeks or until the dead vegetation has decomposed.

**Irrigation:** Delay the use of treated water for irrigation for three weeks after treatment unless an approved assay shows that the water does not contain more than 0.1 ppm 2,4-D acid. Do not treat irrigation ditches in areas where water will be used to overhead sprinkler irrigate susceptible crops.

**Potable Water:** Delay the use of treated water for domestic purposes for a period of three weeks or until such time as an approved assay shows that the water contains no more than 0.1 ppm 2,4-D acid.

# FALLOWLAND AND CROP STUBBLE

Apply 1 to 4 pts (0.46 to 1.87 lbs ae) AMINE 4 per acre on annual broadleaf weeds and up to 2.14 qts/(2.0 lbs ae) acre on established perennial species. Apply to actively growing weeds. See Planting In Treated Areas section. Do not graze dairy animals on treated areas within 7 days after application. Do not graze meat animals on treated areas within 3 days before slaughter. Do not cut treated grass for hay within 30 days after application. Plant only labeled crops within 29 days following application. Limited to 2 applications per year. Maximum of 2.14 qts AMINE 4 per acre (2.0 lbs ae/acre) per application. Minimum of 30 days between applications.

# FORESTRY (FOREST SITE PREPARATION, FOREST ROADSIDES, BRUSH CONTROL, ESTABLISHED CONIFER RELEASE, CHRISMAS TREES, REFORESTATION AREAS)

# **Forest Site Preparation**

To control alder, susceptible broadleaf weeds, and susceptible woody plants before planting forest seedlings, apply 4 to 8 pts (1.87 to 3.74 lbs ae) AMINE 4 in 5 to 25 gals of water, per acre. To provide uniform uptake of product, apply when sufficient foliage exists.

**Broadcast application:** Limited to 1 broadcast application per year. Apply a maximum of 4.28 qts AMINE 4 per acre (4.0 lbs ae/acre) per broadcast application.

To control alder, susceptible broadleaf weeds, and susceptible woody plants before planting forest seedlings, apply 4 to 8 pts (1.87 to 3.74 lbs ae) AMINE 4 in 5 to 25 gals of water, per acre. To provide uniform uptake of product, apply when sufficient foliage exists.

# **Forest Conifer Release**

To control alder, susceptible broadleaf weeds, and susceptible woody plants in conifer plantations, apply 2 to 6 pts AMINE 4 (.93 to 2.8 lbs ae) per acre in a minimum of 5 gals spray mixture per acre. For best results, apply in the spring before budbreak or after budset in late summer to help reduce risk of conifer injury. Certain conifer species are less tolerant to 2,4-D and injury will occur with application. Consult your local university or Agricultural Extension Service Specialist for more specific information on rates and timing of applications.

# **Forestry-Tree Injection**

For controlling species such as alder, aspen, birch, blackgum, cherry, oak, poplar spp., sweetgum,

and tulip poplar, make injections or cuts around the tree or stem, using one injection or cut per inch of trunk diameter. For resistant species such as hickory, injection cuts should touch. For best results, injections should be made during the growing season, May 15 to October 15.

For concentrate injections or stump treatments: Injection: Limit to one injection application per year. Use 1 to 2 ml of undiluted AMINE 4 formulation per injection site (no more than 4.0 lbs ae/acre). The injection bit must penetrate the inner bark.

**Basal spray, Cut Surface - Stumps, and Frill:** Limit of one basal spray or cut surface application per year. Maximum of 8.56 qts AMINE 4 (8.0 lbs ae) per 100 qals of spray solution.

# GRASS PASTURES, RANGELAND, AND CONSERVATION RESERVE PROGRAM

Apply 2 to 4 pts AMINE 4 (0.93 to 1.87 lbs ae)/acre, when weeds are small and actively growing and prior to bud stage. Do not apply to newly seeded areas until grass is well established. Do not apply to grass in the early boot through milk stage if grass seed production is desired. Use lower rates on annuals or use higher rate on perennials or when weeds are taller. Bentgrass and legumes may be injured by this treatment. For program lands, such as Conservation Reserve Program, consult program rules to determine whether grass or hay may be used. The more restrictive requirements of the program rules or this label must be followed. Do not graze dairy cattle in treated areas for 7 days after application.

The preharvest interval (PHI) is 7 days (cut forage for hay). Do not permit meat animals being finished for slaughter to forage treated fields within 3 days of slaughter.

**Postemergence:** Limited to 2 applications per year. For moderately susceptible biennial and perennial broadleaf weeds: Use 1.07 to 2.14 qts AMINE 4 per acre (1.0 to 2.0 lbs ae/acre) per application. For difficult to control weeds and woody plants, do not exceed the maximum of 2.14 qts AMINE 4 per acre (2.0 lbs ae/acre) per application.

**Spot treatment:** Use a maximum of 2.14 qts AMINE 4 per acre (2.0 lbs ae/acre). Use a maximum of 4.28 qts AMINE 4 (4.0 lbs ae/acre) per year.

Observe a minimum of 30 days between applications. If grass is to be cut for hay, Agricultural Use Requirements for the Worker Protection Standard are applicable.

**GRASS SEED CROPS:** Use 1 to 4 pts per acre (0.46 to 1.87 lbs ae) in spring or fall to control broadleaf weeds in grass being grown for seed. Do not apply from early boot to the milk stage. Spray seedling grass only after the five-leaf stage, using 3/4 to 1 pt per acre to control small seedling weeds. After the grass is well established, higher rates of up to 4 pts can be used to control hard-to-kill annual or perennial weeds. For best results, apply when soil moisture is adequate for good growth. Limited to 2 applications per year. Maximum of 3.2 pts product (1.5 lbs ae) per acre per application. The maximum seasonal rate is 3.0 lbs ae/acre (3.2 qts AMINE 4), excluding spot treatments.

**Note:** Do not use on bentgrass unless grass injury can be tolerated. Do not graze dairy animals on treated areas within 7 days after application. Do not graze meat animals on treated areas within 3 days before slaughter. Do not cut treated grass for hay within 30 days after application.

NON-CROPLAND (FENCEROWS, HEDGEROWS, ROADSIDES, DRAINAGE DITCHES, ROADSIDES ADJACENT TO ORCHARDS, RIGHTS-OF-WAYS, UTILITY POWER LINES, RAILROADS, AND OTHER NON-CROP AREAS) Postemergence (annual and perennial weeds): Limited to 2 applications per year. Maximum of 2.14 qts AMINE 4 per acre (2.0 lbs. ae/acre) per application. Observe a minimum of 30 days between applications.

**Postemergence (woody plants):** Limited to 1 application per year. Use a maximum of 4.28 qts AMINE 4 per acre (4.0 lbs ae/acre) per year.

Applications to non-cropland areas are not applicable to treatment of commercial timber or other plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes.

Treat annual broadleaf weeds, when young and actively growing, with 2 to 4 pts AMINE 4 (0.93 to 1.87 lbs ae) per acre. Apply 4 to 8 pts AMINE 4 (1.87 to 3.74 lbs ae) per acre for control of biennial and perennial broadleaf weeds. Do not apply to newly seeded area until grass is well established. Bentgrass, clover, legumes and dichondria may be injured by this treatment. Do not graze dairy animals for 7 days following application. Use sufficient gallonage for thorough and uniform coverage.

# ORNAMENTAL AND RECREATIONAL TURF

For weed control on golf courses, cemeteries, parks, and lawns, apply 2 to 4 pts AMINE 4 (0.93 to 1.87 lbs ae) per acre when weeds are young and actively growing. Do not apply to newly seeded areas until grass is well established. Use sufficient gallonage for thorough and uniform coverage. Limited to 2 applications per year. Maximum of 1.6 qts AMINE 4 per acre (1.5 lbs ae/acre) per application. The maximum seasonal rate is 3.2 qts AMINE 4 per acre (3.0 lbs ae/acre), excluding spot treatments.

**PINE RELEASE:** To control hardwoods, such as Oak, Hickory, Maple, Pecan, Elm, Sumac, and Hawthorn in Southern pine stands, use AMINE 4 undiluted in a concentrate tree injector calibrated to apply 0.75 ml per injection. Space injections 2" apart, edge to edge, completely around the tree and close to the base. The injector bit must penetrate the inner bark. On hard-to-kill species such as Hickory, Dogwood, Red Maple, Blue Beech and Ash, make injections 1" to 1½" apart, edge to edge. Treatment may be made at any time of year. Limit to one injection application per year. Use 1 to 2 ml of undiluted AMINE 4 formulation per injection site (no more than 4.0 lbs ae/acre).

**CONTROL OF SOUTHERN WILD ROSE: On rangelands, roadsides, and fencerows,** use 1 gal of AMINE 4 (3.74 lbs ae) plus 4 to 8 fluid ounces of an agricultural surfactant per 100 gals of water and spray thoroughly as soon as foliage is well developed. On rangeland, apply a maximum of 2 qts (1.87 lbs ae) of AMINE 4 per acre per application. Do not graze dairy animals on treated areas within 7 days after application. Do not graze meat animals on treated areas within 3 days before slaughter. Do not cut treated grass for hay within 30 days after application.

Maximum of 2.0 lbs ae/acre (2.14 gts AMINE 4) per application.

Limited to 2 applications per year. Minimum of 30 days between applications. If grass is to be cut for hay, Agricultural Use Requirements for the Worker Protection Standard are applicable.

# WEEDS AND BRUSH ON IRRIGATION CANAL DITCHBANKS-

**Seventeen Western States** 

Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, New Mexico, Nevada, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington and Wyoming.

**For control of annual and perennial broadleaf weeds,** apply 1 to 2 qts (0.93 to 1.87 lbs ae/acre of AMINE 4 per acre in approximately 20 to 100 gals of water per acre. Treat when weeds are young and actively growing before the bud or early bloom stage. For harder-to-control weeds a repeat spray after 3 to 4 weeks using the same rates may be needed for maximum results. Apply no more than two treatments per season.

**For shoreline weeds:** Allow no more than 2 foot overspray onto water.

**For woody brush and patches of perennial broadleaf weeds,** mix one gal of AMINE 4 (3.74 lbs ae) in 150 gals of water. Wet foliage thoroughly using about one gal of solution per square rod.

**Spraying Instructions:** Low pressure (10 to 40 psi) power spray equipment should be used and mounted on a truck, tractor or boat. Apply while traveling upstream to avoid accidental concentration

of chemical into water. Spray when the air is calm, 5 mph or less. Do not use on small canals (less than 10 cfs) where water will be used for drinking purposes. Boom spraying onto water surface must be held to a minimum and no cross-stream spraying to opposite banks should be permitted. When spraying shoreline weeds, allow no more than two-foot overspray onto water with an average of less than one-foot overspray to prevent introduction of greater than negligible amounts of chemical into the water.

Water within treated banks should not be fished.

Do not graze dairy animals on treated areas within 7 days after application. Do not graze meat animals on treated areas within 3 days before slaughter. Do not cut treated grass for hay within 30 days after application.

**Ditch Bank Applications: Postemergence:** Limited to 2 applications per season. Maximum of 2.14 qts product/acre (2.0 lbs ae/acre) per application. Minimum of 30 days between applications. Spot treatment permitted.

Do not use on small canals with a flow rate less than 10 cubic feet per second (CFS) where water will be used for drinking purposes. CFS may be estimated by using the formula below. The approximate velocity needed for the calculation can be determined by observing the length of time that it takes a floating object to travel a defined distance. Divide the distance (ft) by the time (sec) to estimate velocity (ft per sec). Repeat 3 times and use the average to calculate CFS.

Average Width (ft) x Average Depth (ft) x Average Velocity (ft per sec) = CFS

For ditchbank weeds: Do not allow boom spray to be directed onto water surface. Do not spray across stream to opposite bank.

**SPOT TREATMENT IN NON-CROP AREAS:** To control broadleaf weeds in small areas with hand sprayer, use 1/4 pt of AMINE 4 in 3 gals of water and spray to thoroughly wet all foliage.

Limited to 2 applications per year. Maximum of 2.14 qts AMINE 4 per acre (2.0 lbs ae/acre) per application or (0.045 lb ae/1000 sq. ft.). Aerial application is prohibited for spot treatments. Observe a minimum of 30 days between applications.

# **SMALL QUANTITY DILUTION TABLE**

To spray small areas use the following dilution table.

<u>If Dosage on Label shows:</u>	Use this Amount for each Gal of water
2 pts (1 qt)	3/4 ounces (1 1/2 tablespoons)/1,000 sq ft
3 pts (1 1/2 qts)	1 1/4 ounces (2 1/2 tablespoons)/1,000 sq ft
4 pts (2 gts)	1 1/2 ounces (3 tablespoons)/1,000 sq ft
6 pts (3 qts)	2 1/4 ounces (4 1/2 tablespoons)/1,000 sq ft

### STORAGE AND DISPOSAL

**PROHIBITION:** Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container. Do not store under conditions which might adversely affect the container or its ability to function properly. **PESTICIDE STORAGE:** Do not store below temperature of 25° F. If frozen, warm to 70° F and redissolve before using by rolling or shaking the container. Store in a safe manner. Store in original container only. Store in cool, dry place. Keep container tightly closed when not in use. Reduce stacking height where local conditions can affect package strength. Personnel should use clothing and equipment consistent with good pesticide handling.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate, is a violation of Federal law and may contaminate groundwater. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER HANDLING: Nonrefillable container.** Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact The Agricultural Container Recycling Council (ACRC) at www.acrecycle.org. If not recycled, then puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

(For packages up to 5 gallons:) Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

(For packages greater than 5 gallons or 50 lbs:) Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

(For square bottom caged totes greater than 55 gals.): Triple rinse or pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Fill the container about 1/4 full with water, rinsing down all sides inside the container thoroughly. Recirculate water with the pump for 2 minutes. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

**(For refillable containers:)** Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

In Case of Spill: For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC - 1-800-424-9300.

Steps to be taken in case material is released or spilled: Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal. Remove contaminated clothing, and wash affected skin areas with soap and water. Wash clothing before re-use. Keep the spill out of all sewers and open bodies of water.

# CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

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